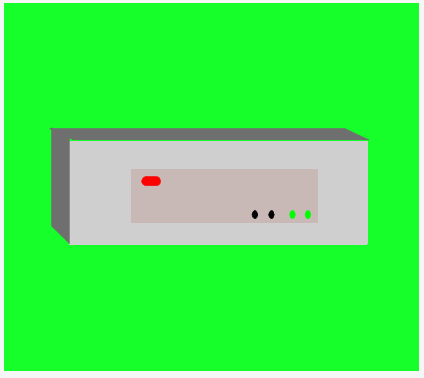
Scientific Atlanta Explorer HCT



Supports Management Module SM-SFA1000

APRISMA SPECTRUM® POWERED SOLUTIONS

Device Management

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Contents

INTRODUCTION **4**

Purpose and Scope 4
Required Reading 4
Supported Devices....5
The SPECTRUM Model....6

TASKS **7**

ICON SUBVIEWS **8**

Configuration View....8
Set Top Tuner View 8
Set Top Status View 9
Forward Data Channel View 9
Reverse Data Channel View....10
Device Information View 10

MODEL INFORMATION VIEW **11**

INDEX **12**

Introduction

This section introduces the SPECTRUM Device Management documentation for Scientific Atlanta Explorer Set Top devices.

This introduction contains the following topics:

- *Purpose and Scope*
- *Required Reading*
- *Supported Devices* (Page 5)
- *The SPECTRUM Model* (Page 6)

Purpose and Scope

Use this documentation as a guide for managing Scientific Atlanta Explorer series Set Top boxes with the SPECTRUM management module SM-SFA1000. This documentation describes the icons, menus, and views that enable you to remotely monitor, configure, and troubleshoot Scientific Atlanta Explorer Set Top boxes through software models in your SPECTRUM database.

Information specific to SM-SFA1000 is what is primarily included in this document. For general information about device management using SPECTRUM and explanations of SPECTRUM functionality and navigation techniques, refer to the topics listed under *Required Reading*.

Required Reading

To use this documentation effectively, you must be familiar with the information covered by the other SPECTRUM online documents listed below.

- ***Getting Started with SPECTRUM for Operators***
- ***Getting Started with SPECTRUM for Administrators***
- ***How To Manage Your Network with SPECTRUM***
- ***SPECTRUM Views***
- ***SPECTRUM Menus***
- ***SPECTRUM Icons***
- ***SPECTRUM Software Release Notice***

Supported Devices

The SPECTRUM management module SM-SFA1000 currently allows you to model two different types of Set Top devices as described below.

Explorer 2000. Scientific Atlanta Set Top Box. Delivers digital television programming, interactive pay-per-view, interactive program guide and digital music. Supports interactive applications including video-on-demand, web browsing, e-mail, t-commerce, and enhanced TV.

Explorer 6000. Scientific Atlanta Set Top Box. This digital set-top is a home gateway to an array of new broadband-enabled wireless services including Internet access, e-mail and voice applications accessible via appliances such as wireless phones.

Note:

By default, no attributes are polled for models of CMs. This is done to conserve upstream bandwidth in network environments where thousands of models may have been created. However, in order to maintain contact with CM devices, SPECTRUM polls **SysUpTime** at three times the polling interval for the CM. For example, if polling is set to 5 minutes (the default value), the value of **SysUpTime** for CMs will be read every 15 minutes. If you enable polling for any attribute, polling will be done at the specified interval and **SysUpTime** will no longer be polled for contact status. For more information about polling, see the ***How To Manage Your Network with SPECTRUM*** document.

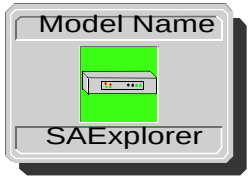
The SPECTRUM Model

The model type for the Scientific Atlanta Explorer devices is **SAExplorer**.

Note: This device can only be modeled by the device type. Currently, it cannot be modeled using the IP address.

Figure 1 displays the device icon.

Figure 1: Device Icon



The device-specific Icon Subviews menu options available from the Device icon are listed below.

Table 1: Device Icon Subviews Menu

Option	Accesses the...
Configuration	*Configuration View* (Page 8)
Tuner	*Set Top Tuner View* (Page 8)
Status	*Set Top Status View* (Page 9)
Forward Data Channel	*Forward Data Channel View* (Page 9)
Reverse Data Channel	*Reverse Data Channel View* (Page 10)
Device Information	*Device Information View* (Page 10)
Model Information	*Model Information View* (Page 11)

The rest of the documentation for this management module is organized according to view type, as follows.

- *Tasks* on Page 7
- *Icon Subviews* on Page 8
- *Model Information View* on Page 11

Tasks

This section lists device management tasks alphabetically and provides links to descriptions of the views and/or tables used to perform the task.

Channel Status (configure)

- *Channel Status* (Page 8)

Device Icons (monitor)

- *Device Icon* (Page 6)

Device Information (monitor, configure)

- *Device Information View* (Page 10)
- *Model Information View* (Page 11)

Model Alarms (enable/disable)

- *Configuration View* (Page 8)

Status (monitor, configure)

- *Set Top Status View* (Page 9)

Tuner Information (configure)

- *Set Top Tuner View* (Page 8)

Icon Subviews

This section describes the device-specific views available from the Icon Subviews menu for models of Scientific Atlanta Explorer devices.

Configuration View

Access: *From the **Icon Subviews** menu for the device icon, select **Configuration**.*

This view provides a **Model Alarming** button, described below.

Model Alarming

This button lets you enable/disable alarms for this model. Alarms for models of Scientific Atlanta Explorer devices are `Disabled` by default. When alarms are disabled, loss of contact results in the model transitioning to a suppressed state which is reflected by the icon turning gray. This alarm functionality can be enabled either on a per model basis using this button or globally by setting the `Enable_Alarms` attribute to `TRUE` in the database. See the ***Getting Started with SPECTRUM's Cable Broadband Solution*** document for more information.

Set Top Tuner View

Access: *From the **Icon Subviews** menu, select **Tuner**.*

This view contains the following information:

Channel Status
The channel status (lock) for the FAT (Forward Application Transport). Valid values are: `locked`, and `unlocked`.

AGC Value
The AGC value of the QAM channel.

Frequency (Hz)
Read and write the FAT frequency.

SNR (dB)
The running average estimate of the magnitude of the error signals.

Discontinuity Count
The number of discontinuities detected on the MPEG transport path since the last read on the active video PID.

Video PID
Current MPEG video PID.

Audio PID
Current MPEG audio PID.

Set Top Status View

Access: *From the **Icon Subviews** menu, select **Status**.*

This view contains the following information:

OS Version
This is a string identifying the operating system version.

HW Version
A raw data dump of a hardware data structure as returned by the SA API. The current length is 16 bytes: 4:1:1:1:1:4:1:1:2 which correspond to the following devices, respectively: BIP, AC3, BGATE, BCM, TVP, MAC, QPSKRX, QPSKTX, HWconfig.

Check Sum
This returns the results of the OS checksum verification test.

Power
This identifies the power on/off status.

***Reset Set Top**
Setting this field to 1 resets the system.

Forward Data Channel View

Access: *From the **Icon Subviews** menu, select **Forward Data Channel**.*

This view contains the following information:

Frame Lock Status
This is the FDC (Forward Data Channel) frame lock status. Valid values are: `locked`, and `unlocked`.

Power Level (dBmV)
The Power Level of the FDC.

Frequency (Hz)
The current FDC frequency.

Reverse Data Channel View

Access: *From the **Icon Subviews** menu, select **Reverse Data Channel**.*

This view contains the following information:

Power Level (dBmV)
The current RDC (Reverse Data Channel) power level setting.

Range Delay
The current RDC Range delay.

Frequency (Hz)
The current RDC frequency.

Retransmissions (Hz)
The the number of RDC retransmissions.

Device Information View

Access: *From the **Icon Subviews** menu, select **Device Information Data Channel**.*

This view contains the following information:

Index
A unique value for each secure micro. The value ranges between 1 and the value of **Session Count**.

Serial Number
The serial number of the secure micro processor.

Session Count
The current number of secure interactive sessions the Secure Micro is providing.

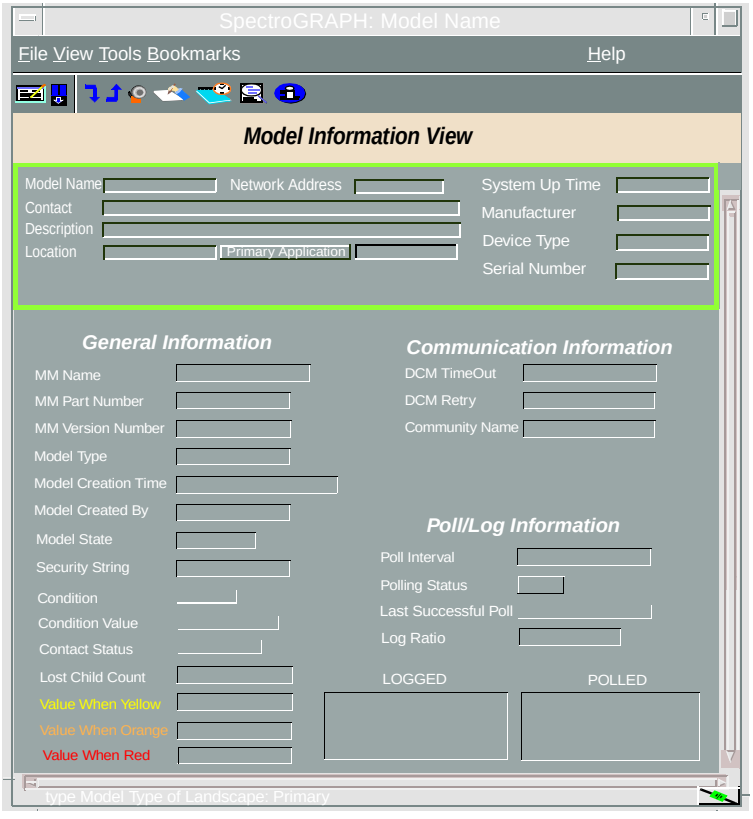
Model Information View

This section provides a brief overview of the Model Information view.

This view displays administrative information about the device and its applications and lets you set thresholds and alarm severity for the device.

Figure 2 shows a sample Model Information view. The layout of this view is the same for all model types in SPECTRUM but some information will vary depending on the model it defines. Refer to the ***SPECTRUM Views*** documentation for a complete description of this view.

Figure 2: Model Information View



Index

A

AGC Value 8
Alarms for CMs 8
Audio PID 9

C

Channel Status 8
Check Sum 9
Configuration 6
Configuration View 8

D

Device Information 6
Devices supported by this module 5
Discontinuity Count 8

E

Enable_Alarms, attribute 8
Explorer 2000 5
Explorer 6000 5

F

Forward Application Transport 8
Forward Data Channel 6, 9
Frame Lock Status 9
Frequency 8, 9, 10

G

Getting Started with SPECTRUM's Cable Broadband Solution 8

H

Hardware Version 9

M

Model Information 11
Model Alarming, Button 8
Model Information 6
MPEG 9

O

OS Version 9

P

Power 9
Power Level 9, 10

R

Range Delay 10
Required Reading 4
Reset Set Top 9
Retransmissions 10
Reverse Data Channel 6, 10

S

SAExplorer 6
Scientific Atlanta Set Top Box 5
Serial Number 10
Session Count 10
SM-SFA1000 4
SNR 8

Index

Status 6, 8
Supported devices 5

T

Tuner 6

V

Video PID 9

Index